

REMARKS

This paper responds to the Office Action mailed 26 January 2005.

By this response, claims 1, 9 and 14 are amended to address the rejection raised under 35 USC §112. In particular, the word "first" has been deleted in each of those claims. Claim 18 is cancelled by this amendment, and no further amendments are presented in this response.

The remarks below address the 35 USC §103 rejections raised against the independent claims 1, 4, 9 and 14.

The main reference cited against claims 1, 4, 9 and 14 is again "Ransford" (US 6 532 087). The Examiner has again indicated that Ransford fails to disclose the channel error ratio being obtained from a combination of measured error ratios which are obtained in a sequence, with a particular threshold level being applied to multiple channels for each cycle of the sequence.

Independent claims 1 and 4 are rejected under 35 USC §103(a) as being unpatentable over Ransford in view of Myers (US 6 430 715).

Independent claims 9 and 14 are rejected under 35 USC §103(a) as being unpatentable over Ransford in view of Myers and further in view of Al-Salameh (US 6 430 715).

As previously explained, the independent claims are clearly directed to the approach explained most clearly with reference to Figure 4 of the instant application.

In Figure 4, the measurements are taken in numerical order from 40 to 55 for the four channels A to D. Thus, the measurements cycle through the channels. Ransford instead operates in the manner explained at page 3 lines 19-27 of the instant application.

Myers discloses a system in which multiple bit error rate measurements are carried out on a single channel. The system first detects the frequency of the incoming channel, and this "frequency measurement consists of a high speed pre-scaler that drives a counter". "The frequency will be measured ... to derive the Incoming frequency" (column 4 lines 31- 35).

Myers thus discloses the detection of the frequency of the incoming signal, followed by monitoring of the BER of the signal having that frequency.

As shown in Figure 3, the Bit Error Rate measurement of Myers involves using "multiple threshold adjustment blocks" in parallel. Each of these threshold adjustment blocks 18T is associated with a phase adjustment block 18P, and a D-type flip flop which effectively counts detected errors and provides this information to the error detection unit 20.

The System of Myers operates by implementing multiple error rate analyses in parallel. Each error rate analysis is effectively the analysis of a different point of the optical eye, as explained with reference to Figure 5. "A high-speed information processing unit 16U processes all the incoming data" (column 4 line 7), and this processes all of the parallel information received in order to derive an error rate measurement.

In summary, Myers discloses a system which detects the frequency of an input signal, and carries out multiple error analysis operations in parallel for that input signal.

There is no disclosure or suggestion of a "measurement circuit being operable to cycle through all channels, taking an error ratio measurement for each channel in sequence with a predetermined decision threshold level", as required by each independent claim in the instant application.

There is thus no disclosure or suggestion in Myers of taking error ratio measurements for multiple channels in turn, so as to build up the information for

each channel in a piecewise manner, in the manner which can most clearly be understood from Figure 4 of the instant application.

Ransford and Myers thus fail to disclose, alone or in combination, the measurement of error ratios for specific decision thresholds across multiple channels in turn, so that the information required for the channel error ratio is built up for the multiple channels in parallel.

The failure of Ransford and Myers to disclose or suggest the combination of features in claims 1 and 4 renders the rejections of the other independent claims 9 and 14 moot, as these rejections are all fundamentally based on the same rejection over the combination of Ransford and Myers.

It is therefore respectfully submitted that the clarification given above addresses the rejections raised against independent claims 1, 4, 9 and 14. Al-Salameh (US 6 430 715), cited against claims 9 and 14, also fails to disclose the cycling of error ratio measurements for individual decision threshold levels between different channels.

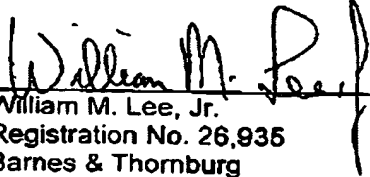
It is therefore submitted that the independent claims 1, 4, 9 and 14 are novel and non-obvious in view of the prior art.

Detailed arguments are not presented in respect of the dependent claims. However, the arguments of the Examiner should not be taken to be accepted.

In view of the arguments above, it is submitted that this application is in condition for allowance. Such action is therefore solicited.

April 20, 2005

Respectfully submitted,



William M. Lee, Jr.
Registration No. 26,935
Barnes & Thornburg
P.O. Box 2786
Chicago, Illinois 60690-2786
(312) 214-4800
(312) 759-5646 Fax

CNDS01 WLEE 298215v1